

CLAIMS

1. A reactive polyurethane hot melt adhesive composition comprising a urethane diol and a polyisocyanate.
2. The adhesive composition of claim 1, further comprising a polyether polyol.
3. The adhesive composition of claim 1, further comprising a polyester polyol.
4. The adhesive composition of claim 1, further comprising a (meth)acrylic polymer.
5. The adhesive composition of claim 1, further comprising a thermoplastic polymer.
6. The adhesive of claim 1, further comprising a tackifying resin.
7. An adhesive composition according to claim 1, wherein the adhesive comprises a urethane diol at a concentration of 0.1-50% (w/w)
8. An adhesive composition according to claim 7, wherein the adhesive comprises a urethane diol at a concentration of 2.5-25% (w/w)
9. An adhesive composition according to claim 1, characterized in that the urethane diol is the reaction product of a cyclic carbonate and a compound containing an amino group and a further group selected from amino and hydroxy.
10. An adhesive composition according to claim 9 characterized in that the compound containing an amino group and a further group is selected from the group of compounds comprising diamines, alkanolamines and amine terminated polyamides.

11. An adhesive composition according to claim 10 characterised in that the compound containing an amino group and a further group is selected from the group of compounds comprising ethylene diamine, 1,4 butane diamine, 1,6 hexane diamine, 2 methyl 1,5 pentane diamine, 2,2,4 trimethyl-1,6 hexane diamine, 2,4,4 trimethyl-1,6 hexane diamine, polyoxypropylene diamines, ethanolamine and propanolamine .
12. An adhesive composition according to 9 characterised in that the cyclic carbonate is selected from the group comprising glycerol carbonate, ethylene carbonate, propylene carbonate and butylene carbonate.
13. An adhesive composition according to claim 1 characterised in that the urethane diol is made separately and added to the adhesive composition.
14. An adhesive composition according to claim 1 characterised in that the urethane diol is made in-situ during the preparation of the adhesive composition.
15. A method of improving the open time and/or green strength of a polyurethane adhesive using an adhesive composition according to claim 1.
16. A method of applying a polyurethane adhesive with a low melt viscosity or a low application temperature using an adhesive composition according to claim 1.
17. A method of applying a polyurethane adhesive with an application temperature $<100^{\circ}\text{C}$ using an adhesive composition according to claim 1.
18. A method of bonding materials together which comprises applying the reactive hot melt adhesive composition according to claim 1 in a liquid form to a first substrate, bringing a

second substrate in contact with the composition applied to the first substrate, and
subjecting the compositions to conditions which will allow the compositions to cool and
cure to an irreversible solid form, the conditions comprising moisture.

19. An article of manufacture comprising the adhesive composition according to claim 1.